

SEQUENCE LISTING

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 Young, John D.

<120> ANALOGS OF CATIONIC PROTEINS

<130> A-411A US Revised073100

<140> 09/214,214

<141> 1998-12-23

<150> PCT/US97/12609

<151> 1997-07-17

<150> US 08/684,353

<151> 1996-07-19

<160> 12

<170> PatentIn Ver. 2.1

<210> 1

<211> 120

<212> PRT

<213> Human

<400> 1

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Met | Tyr | Ala | Glu | His | Lys | Ser | His | Arg | Gly | Glu | Tyr | Ser | Val | Cys | Asp | 1 | 5 | 10 | 15 |
| Ser | Glu | Ser | Leu | Trp | Val | Thr | Asp | Lys | Ser | Ser | Ala | Ile | Asp | Ile | Arg | 20 | 25 | 30 | |
| Gly | His | Gln | Val | Thr | Val | Leu | Gly | Glu | Ile | Lys | Thr | Gly | Asn | Ser | Pro | 35 | 40 | 45 | |
| Val | Lys | Gln | Tyr | Phe | Tyr | Glu | Thr | Arg | Cys | Lys | Glu | Ala | Arg | Pro | Val | 50 | 55 | 60 | |
| Lys | Asn | Gly | Cys | Arg | Gly | Ile | Asp | Asp | Lys | His | Trp | Asn | Ser | Gln | Cys | 65 | 70 | 75 | 80 |
| Lys | Thr | Ser | Gln | Thr | Tyr | Val | Arg | Ala | Leu | Thr | Ser | Glu | Asn | Asn | Lys | 85 | 90 | 95 | |
| Leu | Val | Gly | Trp | Arg | Trp | Ile | Arg | Ile | Asp | Thr | Ser | Cys | Val | Cys | Ala | 100 | 105 | 110 | |
| Leu | Ser | Arg | Lys | Ile | Gly | Arg | Thr | 115 | 120 | | | | | | | | | | |

<210> 2

<211> 360

<212> DNA

<213> Human

<400> 2

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gaaatcaaaa ccggttaactc tccggttaaa cagtacttct acgaaacccg ttgcaaagaa 180
gctgcaccgg ttgacaacgg ttgccgtggg atcgacgaca aacactggaa ctctcagtgc 240
aaaacctctc agacctacgt tcgtgctctg acctctgaaa acaacaagct tgttggttgg 300
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<212> PRT

<213> Human

<400> 3

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Gly His Gln Val Thr Val Leu Gly Glu Ile Lys Thr Gly Asn Ser Pro
             35             40             45
Val Lys Gln Tyr Phe Tyr Glu Thr Arg Cys Lys Glu Ala Ala Pro Val
             50             55             60
Asp Asn Gly Cys Arg Gly Ile Asp Asp Lys His Trp Asn Ser Gln Cys
             65             70             75             80
Lys Thr Ser Gln Thr Tyr Val Arg Ala Leu Thr Ser Glu Asn Asn Lys
             85             90             95
Leu Val Gly Trp Arg Trp Ile Arg Ile Asp Thr Ser Cys Val Cys Ala
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Leu Ser Arg Lys Ile Gly Arg Thr
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<210> 4

<211> 354

<212> DNA

<213> Human

<400> 4

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gaaatcaaaa ccggttaactc tccggttaaa cagtacttct acgaaacccg ttgcaaagaa 180
gctgcaccgg ttgacaacgg ttgccgtggg atcgacgaca aacactggaa ctctcagtgc 240
aaaacctctc agacctacgt tcgtgctctg acctctgaaa acaacaagct tgttggttgg 300

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354

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 Gly His Gln Val Thr Val Leu Gly Glu Ile Lys Thr Gly Asn Ser Pro
 35 40 45
 Val Lys Gln Tyr Phe Tyr Glu Thr Arg Cys Lys Glu Ala Ala Pro Val
 50 55 60
 Asp Asn Gly Cys Arg Gly Ile Asp Asp Lys His Trp Asn Ser Gln Cys
 65 70 75 80
 Lys Thr Ser Gln Thr Tyr Val Arg Ala Leu Thr Ser Glu Asn Asn Lys
 85 90 95
 Leu Val Gly Trp Arg Trp Ile Arg Ile Asp Thr Ser Cys Val Cys Ala
 100 105 110
 Leu Ser Arg Lys Ile Gly
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 <212> PRT
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<400> 6
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 1 5 10 15
 Glu Ser Leu Trp Val Thr Asp Lys Ser Ser Ala Ile Asp Ile Arg Gly
 20 25 30
 His Gln Val Thr Val Leu Gly Glu Ile Lys Thr Gly Asn Ser Pro Val
 35 40 45
 Lys Gln Tyr Phe Tyr Glu Thr Arg Cys Lys Glu Ala Ala Pro Val Asp
 50 55 60
 Asn Gly Cys Arg Gly Ile Asp Asp Lys His Trp Asn Ser Gln Cys Lys
 65 70 75 80

Thr Ser Gln Thr Tyr Val Arg Ala Leu Thr Ser Glu Asn Asn Lys Leu
85 90 95

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Trp | Arg | Trp | Ile | Arg | Ile | Asp | Thr | Ser | Cys | Val | Cys | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Ser Arg Lys Ile Gly Arg Thr
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<212> PRT

<213> Human

<400> 7

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20 25 30

His Gln Val Thr Val Leu Gly Glu Ile Lys Thr Gly Asn Ser Pro Val
35 40 45

Lys Gln Tyr Phe Tyr Glu Thr Arg Cys Lys Glu Ala Ala Pro Val Asp
50 55 60

Asn Gly Cys Arg Gly Ile Asp Asp Lys His Trp Asn Ser Gln Cys Lys
65 70 75 80

Thr Ser Gln Thr Tyr Val Arg Ala Leu Thr Ser Glu Asn Asn Lys Leu
85 90 95

Val Gly Trp Arg Trp Ile Arg Ile Asp Thr Ser Cys Val Cys Ala Leu
100 105 110

Ser Arg Lys Ile Gly
115

<210> 8

$\langle 211 \rangle$ 120

<212> PRT

<213> Human

<400> 8

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20 25 30

Ser Gly Gly Thr Val Thr Val Leu Glu Lys Val Pro Val Ser Lys Gly
35 40 45

Gln Leu Lys Gln Tyr Phe Tyr Glu Thr Lys Cys Asn Pro Met Gly Tyr
 50 55 60
 Thr Lys Glu Gly Cys Arg Gly Ile Asp Lys Arg His Trp Asn Ser Gln
 65 70 75 80
 Cys Arg Thr Thr Gln Ser Tyr Val Arg Ala Leu Thr Met Asp Ser Lys
 85 90 95
 Lys Arg Ile Gly Trp Arg Phe Ile Arg Ile Asp Thr Ser Cys Val Cys
 100 105 110
 Thr Leu Thr Ile Lys Arg Gly Arg
 115 120

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 <211> 120
 <212> PRT
 <213> Human

<400> 9
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 35 40 45
 Gln Leu Lys Gln Tyr Phe Tyr Glu Thr Lys Cys Asn Pro Met Gly Tyr
 50 55 60
 Thr Asp Glu Gly Cys Arg Gly Ile Asp Asp Arg His Trp Asn Ser Gln
 65 70 75 80
 Cys Arg Thr Thr Gln Ser Tyr Val Arg Ala Leu Thr Met Asp Ser Ala
 85 90 95
 Lys Ala Ile Gly Trp Arg Phe Ile Arg Ile Asp Thr Ser Cys Val Cys
 100 105 110
 Thr Leu Thr Ile Lys Arg Gly Arg
 115 120

<210> 10
 <211> 120
 <212> PRT
 <213> Human

<400> 10
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 1 5 10 15

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 Ser Gly Gly Thr Val Thr Val Leu Glu Lys Val Pro Val Ser Lys Gly
 35 40 45
 Gln Leu Lys Gln Tyr Phe Tyr Glu Thr Lys Cys Asn Glu Met Gly Tyr
 50 55 60
 Thr Asp Glu Gly Cys Arg Gly Ile Asp Asp Arg His Trp Asn Ser Gln
 65 70 75 80
 Cys Arg Thr Thr Gln Ser Tyr Val Arg Ala Leu Thr Met Asp Ser Ala
 85 90 95
 Lys Arg Ile Gly Trp Arg Phe Ile Arg Ile Asp Thr Ser Cys Val Cys
 100 105 110
 Thr Leu Thr Ile Lys Arg Gly Arg
 115 120

<210> 11

<211> 663

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hybrid of
 bacterial (E. coli) and human (Homo sapiens)
 sequence.

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 ctgagtagga caaatccgcc gggagcggat ttgaacgttg cgaagcaacg gccggagggt 180
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 tggacgtctc ataattttta aaaaattcat ttgacaaatg ctaaaattct tgattaatat 360
 tctcaattgt gagcgctcac aatttatcga tttgattcta gatttgagtt ttaactttta 420
 gaaggaggaa taacatatgg ttaacgcgtt ggaattcgag ctactagtgc tcgacctgca 480
 ggggtaccatg gaagcttact cgaggatccg cggaaagaag aagaagaaga agaaagcccc 540
 aaaggaagct gagttggctg ctgccaccgc tgagcaataa ctagcataac cccttggggc 600
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<210> 12

<211> 665

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hybrid of
 bacterial (E. coli) and human (Homo sapiens)
 sequence.

<400> 12

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aatattaatc aagaatttta gcatttgtca aatgaatttt ttaaaaatta tgagacgtcc 360
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ggagagcgtc accgacaaac aacagataaa acgaaaggcc cagtctttcg actgagcctt 600
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gcacg
665

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